MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

TIC3251/TDS3281 – DECISION SUPPORT SYSTEMS

(All Sections / Groups)

4th March 2016
9.00am-11.00am
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 3 pages with 4 Questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please print all your answers in the Answer Booklet provided.

Question 1

(a) How can analytics assist in objective decision making? (2 marks)

(b) Some experts believe that the major contribution of DSS is to the implementation of a decision. Why is this so? (3 marks)

(c) List TWO internal data and TWO external data that could be found in a DSS for a university's admission office. (4 marks)

(d) Identify and discuss the role of middleware tools. (3 marks)

(e) How can consumers benefit from using analytics, especially based on location information? (3 marks)

Question 2

(a) How are neural networks implemented in practice when the training/testing is complete? (3 marks)

(b) The performance of ANN relies on the summation and transformation functions. Explain the combined effects of the summation and transformation functions and how they differ from statistical regression analysis. (3 marks)

(c) All quantitative models are typically made up of four basic components. List and describe them. (4 marks)

(d) What is search engine optimization (SEO)? Why is SEO important for organizations that own Web sites? (3 marks)

(e) Why have neural networks shown much promise in many forecasting and business classification applications? (2 marks)

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Question 3

(a) What are the main differences among line, bar, and pie charts? When should you choose to use one over the other? (3 marks)

(b) What is the difference between information visualization and visual analytics? (2 marks)

(c) What are the three nonfinancial objectives of the balanced scorecard? (3 marks)

(d) How can data mining be used for ultimately curing illnesses like cancer? (3 marks)

(e) Genetic algorithms provide a set of efficient, domain-independent search heuristics for a broad spectrum of applications. List FOUR possible applications for genetic algorithms. (4 marks)

Question 4

(a) Describe your understanding of the emerging term *people analytics*. Are there any privacy issues associated with the application? (4 marks)

(b) Discuss TWO potential impacts of Automated Decision Support (ADS) systems on various types of employees and managers. (4 marks)

(c) Explain the importance of communication and collaboration technologies to the processes of knowledge management. (2 marks)

(d) Describe the Turing test for determining whether a computer exhibits intelligent behavior. (3 marks)

(e) Explain the relationship between the development environment and the consultation (i.e., runtime) environment. (2 marks)

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